

REMARKS

Claims 1, 3, 5, 6, 8, 9, 13, 18 and 21 stand rejected under 35 USC §103 over Schmid in view of Morris.

The device according to the amended claim 1 is distinct from the cited prior art because it uses a sound recognition system wherein a specific snoring sound is stored so that the occurring of said specific snoring sound can be detected by comparing the snoring sound captured by the microphone with the stored snoring sound. If there are sufficient similarities, the snoring sound is recognized as the specific snoring sound and then a radio signal is transmitted to the earplug provided with the integrated radio receiver and the converter for the received radio signals to audio signals.

Furthermore, the device according to claim 1 combines the detection means for the specific snoring sound with an input mechanism whereby alarm signals of different kinds can also be transmitted to the radio receiving means so that the person using the two sound insulating earplugs may have a safe and deep sleep and nevertheless be sure that he or she is e.g. wakened up in time by the alarm clock, by a telephone call, a baby monitoring device and so on, if needed.

Schmid (GB 2 103 807) discloses a device sensitive for snoring sounds only. There is mentioned that the device should respond in particular to the sound of a particular person, but the only means for doing this is a band pass filter. This is an insufficient means for differentiating snoring sounds of different persons, since the same person may produce snoring sounds of different frequencies (and different persons may use similar frequencies for their snoring sounds).

According to the present invention, a sound recognition system is used wherein the specific snoring sound is stored and comparison is made between the snoring sound captured by

the microphone and the stored snoring sound, as described on page 7 lines 21 to 24 of the original specification, and structurally recited in amended claim 1.

Schmid does not disclose sound insulating earplugs since the interference signal for the snoring person is produced by electrodes carrying an electric current through the skin of the person.

Morris discloses a sensor for snoring or other sounds (e.g. teeth grinding) and a warning device where the sensor may wirelessly transmit signals to the warning device. The warning device may produce an unpleasant sound.

Although there is disclosed a processor 110 related to the sensor 105, said processor is not adapted for differentiating snoring noises so as to detect a specific snoring sound. On col. 4, lines 26 ff tasks of the processor 110 are described, e.g. the determination of the rate, duration, and intensity of the snoring and consequently triggering criteria. The office action relies upon the proposition that “recognizing predetermined sounds” is suggested by the reference, see, Office Action, p 3, lines 20-22. This is not an accurate recital of the disclosure in the reference. The reference does not suggest or motivate the recited storage of a specific snoring sound, or the recited comparison with that captured snoring sound.

No sound recognition system is disclosed, suggested or motivated in either reference.

Furthermore, the concept of using two sound insulating earplugs so as to completely insulate the sleeping person from ambient noises is also not disclosed, suggested or motivated by Morris.

Therefore, because Schmid in view of Morris does not suggest or motivate the structure recited in amended claim 1, claim 1 is allowable over those references.

Claims 2, 7, 14-17 and 19 stand rejected under §103 over Schmid in view of Morris and Chang. Chang et al, discloses a hearing protector by which external sound is electrically transmitted and reproduced with a controlled intensity. There is no noise recognition or even selection of noises suggested. Because these claims depend from claim 1 and because the addition of Chang does not suggest or motivate anything pertinent to the amended claim, these claims are allowable over the references.

Claim 4 stands rejected under §103 over Schmid in view of Morris and Falco. The citation of Falco is not relevant for amended claim 1 since the feature of original claim 4 is not included into the new claim 1.

Claims 10-12 and 20 stand rejected under §103 over Schmid and Morris in view of Lewis. Lewis discloses the selection of different sounds to be transmitted to a head set which is used only for alert purposes. No attention is paid to the snore problem and to sound recognition of snoring sounds.

Because these claims depend from claim 1 and because the addition of Chang, Falco and Lewis do not suggest or motivate anything pertinent to the amended claim, these claims are allowable over the references.

None of the cited documents discloses the concept of the detection of specific snoring sounds (specific for a predetermined person) and using the earplugs for therapeutic purposes as well as for attenuating external noises while assuring that important noises will be transmitted to the sleeping person.

Conclusion

It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present claims are in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,



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